

WHAT IS CLAIMED IS:

1. A method for treating at least one member of a backing element/microarray assembly structure, said method comprising at least one of: (1) depositing a component on said at least one member, (2) extracting a component from said at least one member, (3) surface modifying said at least one member, to treat said at least one member of a backing element/microarray assembly structure.
2. The method of Claim 1, wherein said method comprises depositing a component on said at least one member of a backing element/microarray assembly structure and said depositing comprises performing a SiO₂ deposition protocol.
3. The method of Claim 1, wherein said method comprises extracting a component from said at least one member of a backing element/microarray assembly structure.
4. The method of Claim 3, wherein said method comprises contacting said at least one member of a backing element/microarray assembly structure with at least one of a liquid phase and a vapor phase.
5. The method of Claim 4, wherein said component comprises moieties that may adversely affect an array or its reading.
6. The method of Claim 5, wherein said moieties are removed at least from a gasket of said backing element/microarray assembly structure.
7. The method of Claim 5, wherein said moieties comprise low-melting point monomers or truncated polymers.
8. The method of Claim 7, wherein said low-melting point monomers are D4-D20 series linear or cyclic siloxanes.
9. The method of Claim 4, wherein said extraction comprises contacting said at least one member of a backing element/microarray assembly structure with at least one solvent to extract said component.

10. The method of Claim 9, wherein said at least one solvent is an aqueous solvent.
11. The method of Claim 10, wherein said at least one solvent is an organic solvent.
12. The method of Claim 11, wherein said organic solvent is a polar organic solvent.
13. The method of Claim 12, wherein said polar organic solvent is chosen from alcohols, ketones, trialkyl amines, tributyl amines and cyclic solvents.
14. The method of Claim 11, wherein said organic solvent is a non-polar organic solvent.
15. The method of Claim 14, wherein said non-polar organic solvent is chosen from aliphatic hydrocarbons, aromatic hydrocarbons, ethers and glymes.
16. The method of Claim 1, wherein said method comprises surface modifying said at least one member of a backing element/microarray assembly structure.
17. The method of Claim 16, wherein said surface modification comprises contacting said at least one member of a backing element/microarray assembly structure with a plasma.
18. The method of Claim 17, wherein said plasma is produced from nitrogen, air, argon, oxygen, nitrous oxide, helium, water vapor, carbon dioxide, methane, and combinations thereof.
19. The method of Claim 16, wherein said surface modification comprises contacting said at least one member of a backing element/microarray assembly structure with a gas/air mixture.
20. The method of Claim 16, wherein said surface modification comprises contacting said at least one member of a backing element/microarray assembly structure with a plurality of beads.

21. The method of Claim 16, wherein said surface modification comprises contacting said at least one member of a backing element/microarray assembly structure with at least one form of radiant energy.
22. The method of Claim 16, wherein said surface modification comprises exposing said at least one member of a backing element/microarray assembly structure to UV/O₂.
23. The method of Claim 16, wherein said surface modification comprises bombarding said at least one member of a backing element/microarray assembly structure with electrons.
24. The method of Claim 16, wherein said surface modification comprises contacting said at least one member of a backing element/microarray assembly structure with at least one reactive gas.
25. The method of Claim 16, wherein said surface modification comprises:
 - (a) introducing soluble particulates to uncured gasket material,
 - (b) curing said gasket material, and
 - (c) solubilizing said soluble particulates to provide said textured gasket surface.
26. The method of Claim 1, wherein said treatment comprises oxidizing at least one surface of said at least one member of a backing element/microarray assembly structure.
27. The method of Claim 1, wherein said treatment comprises increasing the hydrophilicity of said at least one member of a backing element/microarray assembly structure.
28. The method of Claim 1, wherein said treatment provides a seal about at least elastomeric gasket of said backing element/microarray assembly structure.
29. The method of Claim 1, wherein said treatment comprises sequentially contacting said at least one member of a backing element/microarray assembly structure with at least two of: plasma, UV/O₂ and a solvent.
30. The method of Claim 1, wherein said contacted member is a substrate.

31. The method of Claim 30, wherein said substrate is a backing element substrate.
32. The method of Claim 30, wherein said substrate is a microarray substrate.
33. The method of Claim 1, wherein said contacted member is a gasket.
34. A treated backing element comprising a substrate with a surface bounded by a polymeric gasket, said backing element comprising at least one of: (1) an area comprising a deposited component, (2) an area wherein at least one component has been extracted, and (3) a surface modified area.
35. A method of detecting the presence of an analyte in a sample, said method comprising:
 - (a) contacting a sample suspected of comprising said analyte with a backing element/microarray assembly structure treated according to Claim 1 under conditions sufficient for binding of said analyte to said ligand on said microarray substrate to occur, wherein said microarray assembly comprises a ligand that specifically binds to said analyte of; and
 - (c) detecting the presence of binding complexes on the surface of said microarray assembly to detect the presence of said analyte in said sample.
36. A method comprising transmitting data representing a result obtained from a method of claim 35 from a first location to a second location.
37. A method comprising receiving a transmitted result of a reading of a microarray obtained according to the method Claim 35.
38. A system comprising:
 - (a) a sample suspected of comprising an analyte; and
 - (b) a backing element/microarray assembly structure treated according to Claim 1.

39. A kit comprising:
- (a) at least one member of a backing element/microarray assembly structure treated according to Claim 1; and
 - (b) instructions for using said treated member in an array assay.